

WAVELENGTH (A)

FIG. 3

SIMS: p-ZnO

PRIMARY ION BEAM: Cs +

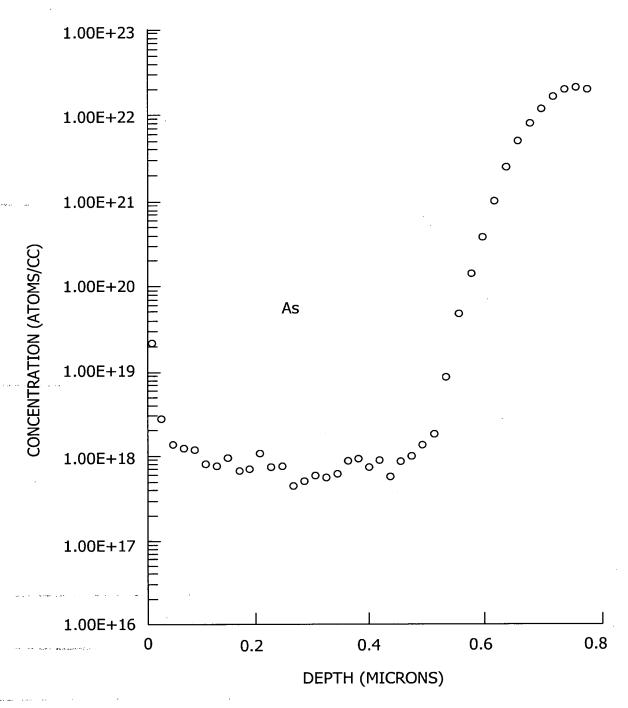


FIG. 4



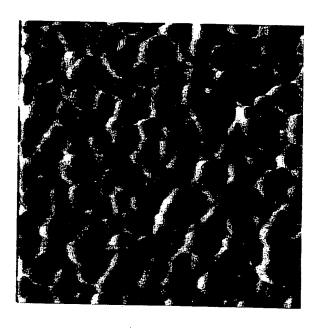


FIG. 5

0.5 µm

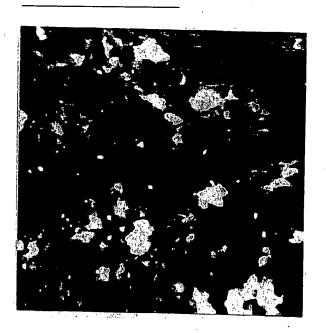
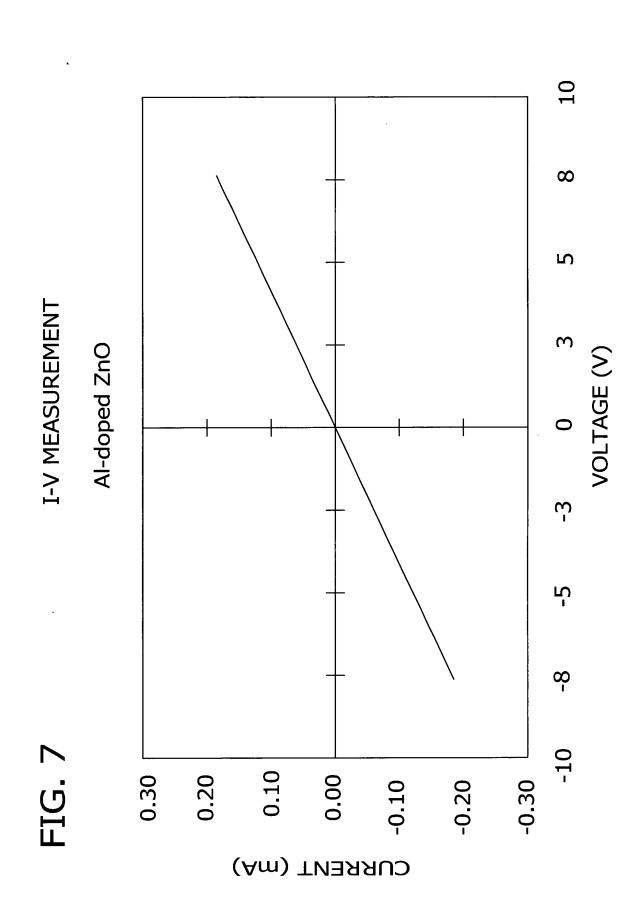
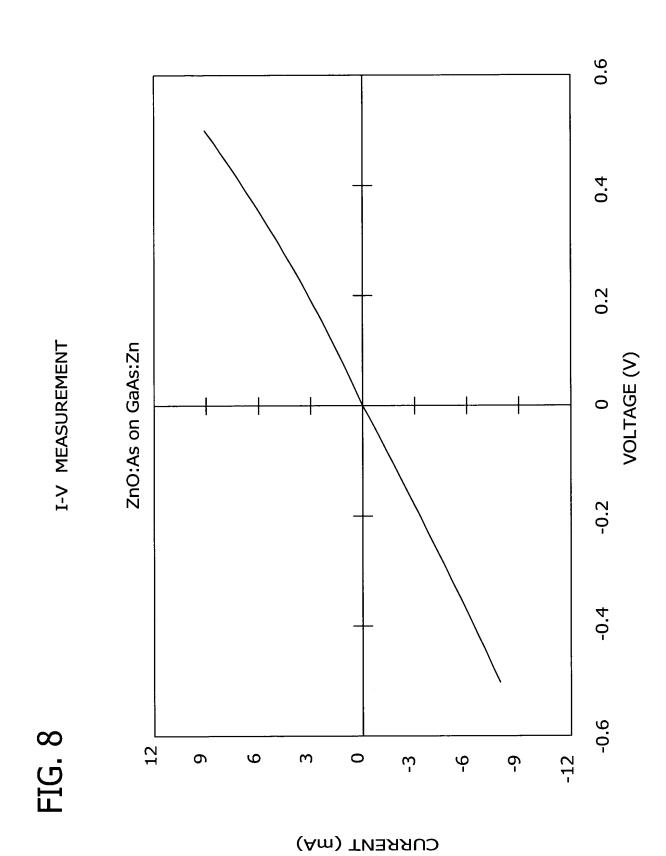


FIG. (

Table 1. Electrical properties of A1-doped ZnO on Al<sub>2</sub>O<sub>3</sub> measured by the Van der Pauw method. The column headings are, respectively from left to right, magnetic field in units of Gauss, Hall coefficient in units of cm<sup>3</sup>/Coulomb, resistivity in units of Ohm-cm, density of carriers in units of cm-<sup>3</sup>, carrier mobility in units of cm2/volt-sec, and sample temperature in units of Kelvin.

Field (Gauss)	Hall Coefficient (cm³/Coulomb)	Resistivity (Ohm-cm)	Carrier Density (cm-³)	Mobility (cm²/volt-sec)	Temperature (Kelvin)
5004	-1.13	1.03	-5.52 x 10 <sup>18</sup>	60:1-	290
4002	-1.07	1.03	$-5.81 \times 10^{18}$	-1.04	290
3001	-1.13	1.03	-5.53 x 10 <sup>18</sup>	60.1-	290
1998	-1.32	1.03	$-4.74 \times 10^{18}$	-1.27	290
1001	-1.50	1.03	-4.16 x 10 <sup>18</sup>	-1.45	290





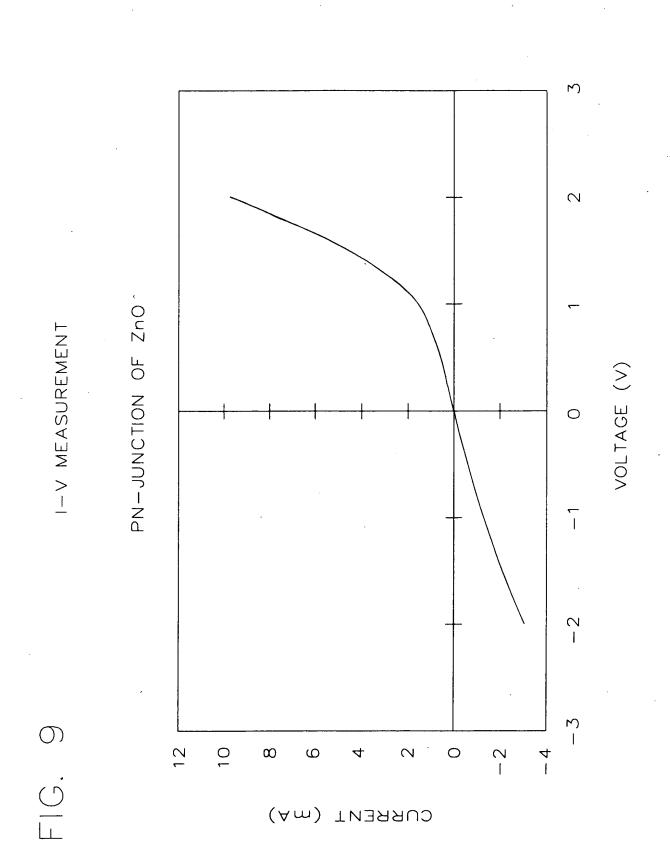


FIG. 10

## A CROSS SECTION OF A ZnO P-N JUNCTION

